

SOME NEW MAMMALS FROM MESOPOTAMIA.

BY

OLDFIELD THOMAS, F.R.S., F.Z.S.

(Published by permission of the Trustees of the British Museum.)

Among some mammals obtained by members of the Mesopotamian Expeditionary Force, and submitted to me for determination by the Bombay Natural History Society there are examples of the following five new species. In pursuance of its habitual public-spirited policy the Society has presented all the types to the National Museum.

1. *EPTESICUS HINGSTONI*, sp. n.

A small form of the *serotinus* group.

Size decidedly smaller than in the Persian form of Serotine previously determined as *turcomanus* of Eversmann, with which *mirza*, Fil. is probably synonymous.

General colour "buffy brown," the hairs slaty with dull buffy ends. Undersurface rather lighter, the hairs slaty, tipped with pale drabby or drabby whitish. Inguinal region dull whitish to the bases of the hairs. Membranes and limbs brown, the hinder edge of the interfemoral whitish.

Ears of medium size; inner basal lobe convex forwards, front margin straight, tip narrowly rounded off. Tragus shaped about as in *E. serotinus*. Wings to the bases of the toes. Tail with two vertebræ exerted. Posterior rump naked; a deposit of fatty matter present in this region.

Skull broad, low, with flattened muzzle and widely expanded zygomata, but in these respects it is less marked than in *E. serotinus* and *turcomanus*, more than in the Egyptian *E. innesi*.

Incisors as in *turcomanus*, the outer pair much smaller than the inner, the outer pair standing so that their front edge is on a level with that of the inner.

Dimensions of the type, measured on skin:—

Forearm 45 mm. Third finger, metacarpus, 43; first phalanx, 14·3; second phalanx, 13·5.

Skull, greatest length, 16·7; condylo-basal length, 16·2; zygomatic breadth, 12; intertemporal breadth, 4; breadth of braincase, 8·2; mastoid breadth, 9·2; front of canines to back of m^3 , 6·3; front of p^1 to back of m^2 , 4·1; breadth across m^2 , 7·7.

Measures of a spirit specimen (male):—Head and body, 59; tail, 40; forearm, 45; ear, 15·5; tragus on inner edge, 5·5; lower leg and foot (c. u.), 27.

Habitat.—Mesopotamia. Type from Baghdad, two other specimens from Basra.

Type.—Adult skin. B. M. No. 19. 3. 1. 1. Original number 304. Collected by Captain Hingston, I.M.S.

This bat, which is named in honour of its first captor, presents an intermediate stage in size between the small *E. innesi* of Egypt and the *E. s. turcomanus* of Persia. *E. shiraziensis*, Dobs. of S. W. Persia is again larger still.

2. EPTESICUS WALLI, sp. n.

A small pale coloured species allied to *E. pellucens* and *matschiei*. Size rather larger than in *E. pellucens*.

General colour, so far as can be observed on a spirit specimen, very much as in that species, with sandy buffy back, buffy whitish undersurface, and translucent membranes, pale brown for the most part, then becoming whitish along the hinder edge of the wings and on the posterior third of the interfemoral. Forearms, tibiae, and tail, dark brown.

Ears rather short, triangular, the front edge nearly straight, the tip narrowly rounded off, almost pointed, the outer edge slightly convex; outer basal lobe little developed. Tragus of medium height, its outer margin slightly convex, with scarcely a trace of basal lobule, tip rounded, inner margin straight. Wings to the base of the toes. Wing membranes near the body, and interfemoral numerously studded with warts, similar to those in *Rhinopterus*, and there are a certain number of warts on the forearms and tibiae. A narrow postcalcereal lobule present. Middle third of tail with an elongated thickening about half an inch in length either of a glandular or a fat-storing nature; a similar structure seems to be present in *E. pellucens*, so far as can be judged from skins.

Skull closely similar to that of *E. pellucens*, but markedly larger and heavier in all dimensions. Upper inner incisors thick, unicuspid, but worn at the point in the type.

Dimensions of type, measured on the spirit specimen:—

Fore arm, 40 mm. Head and body, 55 mm.; tail, 42; ear, 13; tragus on inner edge, 4.3; third finger, metacarpus, 38; first phalanx, 11.7; lower leg and foot (c. u.), 23.3.

Skull, condylo-basal length, 13.7; basi-sinual length, 11; zygomatic breadth 10.4; interorbital breadth, 5; breadth of braincase, 7; breadth across canines, 4.8; across m^2 , 6, 5; front of canines to back of m^3 , 5.3; front of p^1 to back of m^2 , 3.7.

Habitat.—Mesopotamia. Type from Basra.

Type.—Adult female in spirits, B. M. No. 19.3.1.2. Original number M. 17. Collected by Lieut.-Col. F. Wall, I.M.S.

This species is most nearly allied to the bat I described as *Vespertilio matschiei pellucens*, but its skull and dentition are so much larger and heavier that it should evidently be separated. The

characters now observed on the spirit specimen also indicate that *pellucens*, of which we previously only had skins, should be considered as a different species from *matschiei*.

The presence of warty excrescences on membranes and limbs is an interesting character, recalling the condition in *Rhinopterus*, but the skull is shaped quite as in other small *Eptesicus*, and not as in *Rhinopterus*. It is possible however that species elsewhere referred to *Rhinopterus* on account of the presence of warts, (e.g., *Scabrifer notius*, G. M. Allen. Bull. Mus. Harv. LII. p. 46. 1908), are also, as in this case, members of *Eptesicus*.

3. PIPISTRELLUS COXI, sp. n.

A Pipistrel with a whitish undersurface, near *P. rüppelli*.

Size and general colour about as in *P. rüppelli* and *nigripes*, though the back is more broadly washed with sandy buff, so as to hide more completely the dark bases of the hairs. Undersurface wholly buffy whitish, the hairs whitish to their roots.

Ears and limbs black; membranes brown, not whitish.

Skull, compared with that of *P. rüppelli*, smaller, with shorter and less inflated braincase. Muzzle broad and flat, the supraorbital ridges well developed, and continued backwards to form a perceptible sagittal ridge, though the specimen is not old. Below, in agreement with the shortened braincase, the distance from the back of the condyle to the palation is 6.7 instead of about 7.2 mm.

Teeth very much as in *P. rüppelli*; inner incisor large, bicuspid, outer small, not surpassing the cingulum of the inner; small premolar visible from without.

Dimensions of type, measured on skin:—

Forearm, 33 mm. Third finger, metacarpus, 30, first phalanx, 11.6, second phalanx, 10.

Skull, greatest length, 12.8; condylo-basal length, 12.1; basisinual length, 9.8; interorbital breadth, 4.9; intertemporal breadth, 3.7; breadth of braincase, 7; front of canine to back of m^3 , 4.8; front of p^4 to back of m^2 , 3.

Habitat.—Mesopotamia. Type from Bart Mahommed Chakala, Amara.

Type.—Adult skin. B. M. No. 19.3.1.3. Original number 151. Collected 20th March, 1918, by Major R. E. Cheesman, and forwarded by Sir P. Z. Cox.

This bat is not related to any known Asiatic species, but seems to be the northern limit of a series beginning with the Uganda *P. fuscipes*, which has a large and much inflated braincase, through the Egyptian and Soudanese *P. rüppelli*, in which the brain case is more normal, while in *P. coxi* it is distinctly smaller than usual. Colour and other characters seem much the same in all.

Named in honour of Sir P. Z. Cox, to whose assistance the obtaining of a number of the Mesopotamian specimens is due.

4. *PARAECHINUS LUDLOWI*, sp. n.

Nearly allied to *P. dorsalis*, And. and de Wint., but far paler.

General essential characters as in *P. dorsalis*, these, of course, including the peculiar enlarged bullæ and hollow pterygoids characteristic of *Paraechinus*, as compared with *Hemiechinus*, to which the other and more common Mesopotamian hedghog, *H. auritus*, belongs.

Size about as in *dorsalis*. Coloration on the same plan as in that animal, there being similarly a darker median dorsal area with light sides. But on the darker median part, which is about 1-2 inches broad, the spines have only one subterminal dark band (about 4 mm. in length and beginning 4 mm. from tip of spine) instead of two, those of *dorsalis* having a second dark band lower down. And on the light coloured sides the spines are for the most part completely white, without any dark band at all, those of *dorsalis* having here always one dark band and sometimes a second one. Spines of back about 24 mm. in length. Undersurface wholly white. Muzzle and a narrow line up forehead brown. Limbs whitish, darkening terminally.

Skull, so far as can be judged from a somewhat immature example, quite like that of *P. dorsalis*.

Hindfoot, as measured by collector, 34 mm.; ear, 43.

Skull (immature), greatest length, 49.5; condylo-basal length, 49; zygomatic breadth, 28.7; nasals 14.5 × 3.7; interorbital breadth, 12.5; palate length, 25.6; upper tooth series, 25.2; front of p¹ to back of m², 11.7.

Habitat of type.—Hitt, on the Euphrates, about 100 miles West of Baghdad. Altitude about 400'.

Type.—Immature male, B. M. No. 19.3.1.4. Original number 4. Collected 8th August, 1918, by F. Ludlow.

This hedghog, which is widely different from the common *H. auritus*, seems to be only related to *Paraechinus dorsalis*, discovered by Mr. Theodore Bent in the Hadramaut, S. Arabia. It differs, however, so markedly in coloration that it should evidently be distinguished specifically.

5. *GERBILLUS CHEESMANI*, sp. n.

A Gerbil with the general appearance of *G. gerbillus*, *gleadowi*, and *andersoni* but with larger bullæ and smaller teeth than any of them.

External characters very much as in *G. andersoni*, with which the species shares the more normal proportions of the feet and the less tufted tail as compared with the common Egyptian Gerbil, *G. gerbillus*. Colour as usual bright sandy buff above, pure white

below, the hairs of the sides tipped with buffy, and the hairs of the middle of the back alone slaty at base. Usual white eye and ear patches present. Palms and soles with the hairy covering longer than in *andersoni*, less close and fine, but this may possibly be due to confinement. Tail pale buffy white above, pure white below, the terminal tuft little developed, faintly brown above.

Skull, as compared with those of the other species, distinguished by the greater size of the bullæ, which project backwards beyond the level of the most posterior part of the occiput, which is not the case in any one of them. This gives quite a different aspect to the skull in the upper view. Supraorbital ledges strong and heavy, even more so than in *andersoni*, and much more than in *gerbillus*, and with marked postorbital projecting angles, at least in the type, which is an old individual. Molars remarkably small for the size of the animal, and though the specimen is old and the teeth worn, there does not seem evidence that they are materially shortened antero-posteriorly.

Dimensions of type:—

Head and body, 94 mm. ; tail, 132 ; hindfoot, 26 ; ear, 13.

Skull, greatest median length, 29.5 ; greatest diagonal length, 29.8 ; condylo-incisive length, 26 ; zygomatic breadth, 16.2 ; nasals, 11.1, interorbital breadth, 5.2 ; breadth of braincase, 13.8 ; bi-meatal breadth, 15.3 ; palatal foramina, 4.7 ; bulla, greatest longitudinal diagonal length, 11 ; breadth at right angles to last (exclusive of meatal projection), 6.4 ; upper molar series (worn), 3.4.

Habitat.—Mesopotamia ; exact locality not recorded.

Type.—Adult male, B. M. No. 19.3.1.5. Lived for a short time in confinement and died 21st August, 1917, in Bombay. Presented by Major R. E. Cheesman.

This Gerbil is practically indistinguishable externally from *G. andersoni*, but is readily separable by its larger bullæ and smaller teeth. In the common *G. gerbillus* the tail is more tufted and the proximal part of the foot is peculiarly slender, with the distal part broadened, while in *andersoni* and *cheesmani*, the proportions are more normal. The Sind *G. gleadowi* is a less bright buffy and has a tail nearly as much tufted as *G. gerbillus*.

But in none of these allied species do the bullæ project backwards beyond the line of the occiput, as they do in *G. cheesmani*.

